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THE NEW HAVEN COLLEGE

GUIDE TO

BUSINESS AND ENGINEERING EDUCATION

Published June, 1928

CO-EDUCATIONAL

(EVENING SESSIONS)

New Haven College of the Young Men's Christian Association is incorporated under the laws of Connecticut.
Its administrative offices are at 50 Howe Street, New Haven, Connecticut.

RULES AND REGULATIONS

ADMISSION REQUIREMENTS

For admission to New Haven College as full course students, applicants must satisfy the College that they possess the essential qualifications for effective pursuit of the course they desire to enter, and must show promise of successful employability in the field to which their intended education leads. The intensive nature of these courses imposes heavy demands upon the student's time and effort, and necessitates that applicants shall be mature and sound in mind and body, and able effectively to concentrate their entire attention upon the instruction. *More importance is attached to the definiteness of purpose, maturity and general fitness of the candidate, than to his academic training and ability merely to pass set entrance examinations.*

The courses offered by the Departments of Commerce and of Engineering of New Haven College are open to all men and women who have had sufficient preliminary education and experience to pursue the work profitably. Each applicant for admission will be required to file with the Board of Admissions an application blank, constituting a record of previous education, and listing the names of persons to whom reference may be made in regard to character and previous experience. A matriculation fee of $5.00 is required when the application is filed. Following acceptance of the application, students will be enrolled as either (a) Regular, or (b) Special students. Applicants under eighteen years of age who are not graduates of High School may be required to complete such preliminary work as will be outlined by the Board of Admissions.

(a) *Regular Students.* All applicants for the two, three and four-year courses as outlined in the catalogue will be enrolled as regular students, provided they qualify under the following requirements.

1. Graduates of Approved High Schools will be accepted as regular students, provided their school record has been satisfactory.

2. Applicants, eighteen years of age or more, who have had sufficient business or technical experience and who demonstrate by a qualification test that they possess the intelligence expected of high school graduates, may be accepted as regular students.

(b) *Special Students.* All other applicants who fail to meet the above requirements will be classified as special students whether taking single subjects or groups of subjects. They must be capable of undertaking advanced work with profit, and must in all cases have had the necessary preliminary training for the courses they select. A special student may obtain re-classification as a regular student by meeting the admission requirements of regular students.

The New Haven Preparatory School conducted under the general administration of the College provides especially adapted facilities for those applicants to the College whose admission requirements are deficient.

ADVANCED STANDING

Credit for advanced standing in the College may be given for work completed in other approved colleges and universities, if such work is similar in content and character to corresponding courses in New Haven College. At least one full year's work must be completed in the College to graduate, irrespective of the amount of credit earned in other institutions.

Advanced standing in some subjects can be secured by examination, when the applicant has had previous training or industrial experience affecting his ability in such subjects. In this case written application for examination must be presented to the Head of the Department. A grade of 75 per cent must be obtained in the examination in order to secure credit for a subject.

INTERVIEWS

Prospective students are urged to arrange for interviews with officers of the College regarding the course to be selected, admission requirements, and other details. The College officials are willing and ready at all times to counsel with the students in choosing courses and planning their future work. Students should plan to submit their applications early and avoid the delay that comes with late enrollments.

REGISTRATION

Emphasis is placed upon the desirability of registering early in the season and thus avoiding the rush and delay that comes during the opening week. The College can give each individual better service in completing registration if this is attended to before the opening week. Students should file their application for admission at once so that their status may be determined as early as possible. Transcripts showing previous education must be secured by the College office, and the application must be acted upon by the Board of Admissions before a student's status can be determined, which requires considerable time. All students who have applied for admission and have not been notified of their standing before College opens should report for class work upon the opening week unless notified to the contrary.

Each student entering the College for the first time should follow this procedure in completing registration:

1. Either in person or by mail, file the application for admission on the blank provided by the College office, accompanied by the five dollar ($5.00) matriculation fee.

2. Report to the College office in person on or before the opening date to fill out such additional enrollment forms as are required. At this time the students should arrange their programs of work and as far as possible adjust all matters regarding their status.

LATE REGISTRATION

Those who find it necessary to register late may be permitted to enter the College, provided they have not lost so much work as to render it impossible for them to proceed with the courses.

MATRICULATION FEE

Payment of a matriculation fee is required of all students upon their initial application for admission to the College, irrespective of the number of subjects pursued. This fee is payable but once, and will be refunded if the applicant is refused by the Board of Admissions.

Matriculation Fee $5.00

TUITION FEES

The school year comprises 34 weeks, and is divided into two semesters of 17 weeks each. Although students have a choice of enrolling for either one or two semesters at the beginning of the school year, it is advisable that those who are taking a two-semester course or are following one of the two, three or four-year programs of study enroll for the two semesters in advance. Registering for two semesters in advance makes it possible for the student to effect a saving in his tuition bill as indicated in the list of fees below.

Tuition Fees paid in advance are as follows:

	Two semesters	*One semester*
Three subjects, constituting 6 semester hours.....	$100.00	$55.00
Two " " 4 " "	75.00	40.00
*Single " " 2 " "	40.00	22.00
* Except as follows:		
Elementary Mechanical Drawing, per semester.....		15.00
All Accounting Courses, per semester.....		25.00

NOTE: Students who desire to review or are required to repeat courses because of failures are allowed one-half of the regular tuition rates.

EXTENDED PAYMENT PLAN

While tuition payments are payable in advance, frank recognition is made of the fact that some students find it inconvenient to pay the full tuition at the beginning of the semester. To accommodate these students a partial payment plan has been devised. This plan requires payment of part of the tuition on or before the beginning date of each semester. Payment of the balance can be arranged to fit the individual case.

A slight additional charge is made to those who use the extended payment plan, to cover the increased cost of additional records and collections.

SPECIAL FEES

A fee of $10.00 is charged for conferring a degree or title, and the issuance of a diploma.

A fee of $5.00 is charged for the issuance of a two-year Certificate of Proficiency.

A fee of $1.00 is charged for the issuance of a Unit-Certificate.

A fee of $2.00 is charged for each special or make-up examination.

A fee of $1.00 is charged all regular students to cover activities.

EXPENSES FOR BOOKS AND MATERIALS

The expenses for books and materials vary according to the course or group of subjects taken. The price ranges from $1.50 to $4.50 per book.

WITHDRAWALS AND REFUNDS

Refunds of unused tuition payments will be made under the following conditions:

a. Refunds are made in cases of illness, upon the certification of the attending physician that the illness is chronic and likely to prevent the student's resumption of school work within one year. In all other cases of withdrawal because of illness, a credit slip for the unused portion of the tuition is issued, which may be applied on subsequent tuition fees within a period of two years.

b. In case a student is sent out of the city permanently by his employer, or is compelled to change his working hours so as to prevent his continuance in the College, a refund may be granted, provided the application is accompanied by a satisfactory statement from the firm.

c. A credit slip is also issued in cases of withdrawals for reasons other than the above, provided these are beyond the student's control and could not have been anticipated by him. In such cases also a written application for withdrawal and tuition credit must be made within a month of the last class attendance.

In computing the amount of cash refund or credit given, the student will be charged pro rata for the period of time attended up to the time of notification of withdrawal.

REQUIREMENTS FOR GRADUATION

I. For the Degree of Associate in Business Administration (A.B.A.)

Candidates for the degree of Associate in Business Administration (A.B.A.) must satisfy the following requirements:

1. They must have met the entrance requirements and have been admitted to the College as a regular student in candidacy for the degree.

2. They must have secured a minimum credit of sixty semester hours in the following manner:

(a) At least 48 semester hours' credit must be secured through the satisfactory completion of courses in the College unless the student is admitted with advanced standing.

(b) Each candidate must submit a report before May 1st of the year in which he plans to secure the degree covering a project to be outlined for him by the dean of the department. Students will be assigned a project during the third year of their course and must have actively undertaken same at least one year before submission of report. Four semester hours' credit will be allowed for a satisfactory report.

(c) Eight semester hours' credit may be allowed for business experience. Credit for business experience is granted upon the ground that the knowledges, skills, and experiences acquired in a business organization are equivalent to laboratory work. In order to obtain credit for business experience, the student must meet such requirements as may from time to time be prescribed.

II. For the Title of Associate in Technology.

Candidates for the title of Associate in Technology must satisfy the following requirements:

1. They must have met the entrance requirements and have been admitted to the College as a regular student in candidacy for the title.

2. They must have secured a minimum credit of sixty semester hours in the following manner:

(a) At least 48 semester hours' credit must be secured through the satisfactory completion of courses in the College unless the student is admitted with advanced standing.

(b) Each candidate must submit a report before May 1st of the year in which he plans to secure the title covering a project to be outlined for him by the head of the department. Students will be assigned a project during the second year of their course and must have actively undertaken same at least one year before submission of report. Four semester hours' credit will be allowed for a satisfactory report.

(c) Eight semester hours' credit may be allowed for technical experience. Credit for technical experience is granted upon the ground that the knowledges, skills, and experiences acquired in a technical organization are equivalent to laboratory work. In order to obtain credit for technical experience, the student must meet such requirements as may from time to time be prescribed.

III. For the Three-Year Diploma.

1. Students must have met the admission requirements and have been admitted to the College as regular students.

2. They must have secured a minimum credit of thirty-six semester hours in a prescribed course of study.

IV. The Two-Year Certificate of Proficiency.

The two-year certificate will be awarded to regular or special students who have secured credit for twenty-four semester hours in a prescribed course of study. At least 12 units must be completed in New Haven College.

V. Unit-Certificates.

Upon request, unit-certificates will be issued for the completion of any one of the unit subjects of study in New Haven College. Requests for unit-certificates must be made within one month after the semester ends.

VI. Graduation with Honors.

Honors are based upon the excellence of the work performed by students in the College. Two honorary distinctions are conferred upon properly qualified students at graduation:

a. High honors are conferred upon those who complete all term work and examinations throughout their course with at least 90% of A's and no marks below B.

b. Honors upon those who complete all term work and examinations throughout their course with at least 50% of A's and of the balance 75% of B grade.

SEMESTER HOUR

A semester hour is the unit of credit which indicates satisfactory completion of one sixty-minute period of class room work or its equivalent per week for one semester of seventeen weeks. A course which meets 120 minutes per week throughout one semester receives a credit value of two semester hours.

THE COLLEGE YEAR

The College year is thirty-four weeks in length, exclusive of the time allowed for vacation, and is divided into two semesters of seventeen weeks each. The last week of each semester is devoted to examinations.

ATTENDANCE REQUIREMENTS

1. A student must attend at least 75% of the sessions in a course to be permitted to take the final examination in the course except under the following conditions:

a. Where attendance has not been less than 62½% of the sessions the student may receive permission to take the final examination, provided he can furnish to the Committee on Attendance a satisfactory excuse for the absence under 75% attendance.

b. A grade of 70% must be attained in the final examination by such students in order to pass the course.

2. A student must have a total attendance of at least two-thirds of all sessions scheduled for him in his entire courses in order to satisfy the attendance requirements for his diploma. No exception is made to this rule.

3. In order to receive credit for attendance at a session, a student must be present in the classroom during the entire period unless upon satisfactory excuse, his presence for a shorter period is accepted by the instructor.

OUTSIDE PREPARATION

Each subject requires about two hours' outside preparation. This means that the entering student should arrange his time so that he can spend at least two evenings a week in home study. When this time is not so set apart, the subjects are carried on with great difficulty and with less prospect of successful completion.

TERM WORK

1. In most of the courses systematic problems and assigned written work to be completed outside of class hours is required.

In any of the courses, the instructor may require from time to time assigned written work to be done outside of class hours.

2. In those courses where systematic problems and assigned written home work is required, the student must receive a passing grade both in term work and the final examination in order to receive credit in the course. Students failing to attain a passing grade for term work will be required to repeat the entire course if credit is desired.

3. In those courses where no systematic problem and assigned written home work is required, the mid-year and final examinations shall be the determining factors as to the student's success in the course, but at the discretion of the instructor class discussion and written tests may enter into the determination of the final grade.

4. Deduction will be made from written assignments lacking proper form, logical arrangement and structure, and good spelling. Students persistently doing poor work in English will be required to complete additional study and practice in English composition before being permitted to receive the diploma from the College.

5. In courses where systematic problems and assigned written work are required, the head of the department in conference with each individual instructor may determine the time limits and conditions under which such work is to be completed. Credit in a course is dependent upon the promptness and regularity with which such work is turned in.

EXAMINATIONS

1. Final examinations are required upon completion of all courses.

2. Mid-year examinations are required at the close of the first semester in all full-year courses.

3. Under no circumstances will special examinations be given in any course. Students desiring to take examinations must either take the regular scheduled examinations at the end of each course, or the regular make-up examinations as scheduled.

4. One make-up examination is allowed for the final examination in each course and is given regularly every year, those in Senior subjects in the spring and those in Junior, Sophomore and Freshman subjects in September. For those who fail to take or fail to pass the final examination in a semester course at mid-year, a make-up examination will be given within one month after the grades are reported.

5. Make-up examinations for those who fail in mid-year examinations will be provided within one month after the grades are reported. Students failing to take a mid-year examination or an examination at the make-up period will be given a grade of zero (0) for the mid-year examination.

6. No student will be granted credit for any course unless he has received a passing grade in the final examination. In full-year courses, failure of the mid-year examination does not necessarily presuppose failure in the course, provided the final examination is of passing grade.

7. A student who has failed in a course must remove his condition not later than September of the year following that in which his failure occurs.

8. A student who fails in a final examination of a given course receives credit for only 60 per cent in the make-up, even if he obtains a higher grade in the make-up examination.

9. Failure on the make-up examination or in the term work requires the student to repeat the entire course.

10. If a student for good cause does not take a final or mid-year examination, he may take it at the next scheduled examination in the subject and receive credit as for a first examination.

11. For each make-up examination taken by students who were unable to take the first examination, or who have failed in the previous examination, a fee of two dollars ($2.00), payable in advance, is charged. A receipt must be presented to the person in charge of the examination.

12. Mid-year examination books and papers may be returned to the students at the discretion of the instructor. Final examination books are not returned, but may be seen at the office not later than one month after grades have been sent out.

TESTS

1. Each class test not taken by a student will count as zero. Make-up tests may be given at the discretion of the instructor.

2. On each test failed the student will receive the grade given.

3. Make-up tests for the purpose of raising grades are not permitted.

REMOVAL OF CONDITIONS

1. Any student who fails to pass a sufficient number of courses during two successive years may be dropped from the College or required to meet such conditions as are deemed advisable by the Committee on Administration.

2. No student who fails to receive his diploma in due course, on account of conditions, will be permitted to remove his conditions and receive his diploma later than two years after the graduation of his regular class, except by special authorization.

3. Repeating any course involves complete repetition, as if the work were being taken for the first time.

4. Upon the student rests the responsibility of ascertaining whether he has either academic or collegiate conditions and what must be done to remove them.

GRADES

The following system of grading is in use and applies both to examinations and term work:

A—90-100	inclusive	(Superior work)
B—80- 89	"	(Good work)
C—70- 79	"	(Fair or average work)
D—60- 69	"	(Lowest passing grade)
*F—50- 59	"	(Conditional failure)
†FF— 0- 49	"	(Complete failure)

* Students receiving (F) or conditional failure in an examination may remove the condition by repeating the examination when it is next given or at the time of the condition examinations in September of the next year. Conditional failures (F) are not permitted for term or home work. A student either passses or completely fails his term work. Complete failure of term work means repeating the entire course.

† A complete failure (FF) in an examination may be made up only by repeating the entire course, including term work, examination, and necessary attendance. A complete failure (FF) in term work bars the student from the examination, and the course must be repeated.

Warning marks are issued twice a year, on or about December 1, and April 1.

Grade reports are mailed to the students from the office of the College. Under no circumstances are grades given out over the telephone.

NOTIFICATIONS

Notify the office immediately:

1. Of change of address.

2. Of withdrawal from any course; otherwise, the fee for that course will be charged.

3. Of withdrawal from the College, giving the date of the last lecture attended.

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ACADEMIC CALENDAR

1928–29

First Semester:

Registration of Students (first semester)	September 1–29
Examinations for Entrance, Removal of Conditions and Advanced Standing	September 10–15
Opening Exercises	October 1
Class Sessions begin	October 1
Thanksgiving Day (classes omitted)	November 29
Christmas Holidays begin	December 22
Class Sessions resume	January 2
Registration for second semester begins	January 15
Mid-year Examinations commence	January 30

Second Semester:

Registration for second semester ends	February 11
Class Sessions begin	February 11
Washington's Birthday (classes omitted)	February 22
Good Friday (classes omitted)	March 29
Decoration Day (classes omitted)	May 30
Final Examinations commence	June 3

Dates of Baccalaureate Service and
Commencement Exercises to be announced

ADMINISTRATIVE OFFICE HOURS

50 Howe Street — Telephone Pioneer 6600

Daily	Saturday
8:30 A. M. to 5:30 P. M.	8:30 A. M. to 12:00 Noon

Evening Hours between June 10 and October 1 by appointment

COLLEGE OFFICE HOURS

Winchester Hall — 15 Prospect Street — Liberty 7100—Ext. 225

7:00 P. M. to 10:00 P. M. Monday to Friday inclusive
October 1 to June 10

INTERVIEWS

Prospective students or those desiring advice and counsel in regard to any part of the school work or curricula are offered a personal interview with the Dean of the Department.

DEPARTMENT OF ENGINEERING
CONTENT OF COURSES

The courses in the Department of Engineering are definitely organized to make available an effective technical training within the shortest time consistent with thoroughness. To this end the standards of admission are made broad enough so that the actual fitness of the individual is the determining consideration, due recognition being given for approved technical experience in lieu of scholastic work. The curriculum itself has its content and presentation directly related to technical employment, and methods of instruction are used which tend strongly to develop practical efficiency and executive ability.

An essential part of the instruction is the variety of practice and experimentation in the operating and testing of machinery and apparatus for manufacturing, building, power and transportation purposes. Through this instruction, correlated with the class work, the student obtains an appreciation of the possibilities and limitations which determine efficient design, production and management in industry. Throughout his training he is led to think and act for himself, in order that he may become self-reliant and resourceful, and may develop initiative and constructive ability.

PROGRAMS OF STUDY

The programs of study in the Department of Engineering have been developed to meet the varying needs of men employed in industry. Courses of study ranging from single unit subjects to the programs covering four years are described in pages 26 to 35.

Many people apply for the privilege of taking single unit subjects, as there is often some one subject which would be of immediate value to them. All who are qualified to profit by one or more of the subjects given will find provision made for them to enroll. The satisfactory completion of each course is recognized by a Unit-Certificate.

To make it possible for students to follow a consecutive program of sound technical education, subjects have been co-ordinated for programs of study ranging from two to four years. Each unit subject listed is a regular semester subject. Successful completion of the required number of unit subjects as outlined in the two, three and four-year courses will entitle the student to the Certificate of Proficiency, the Diploma, or the title of Associate in Technology. Complete descriptions of unit courses may be found in pages 61 to 70.

UNIT SUBJECTS MAY BE ELECTED

The following is a classified list of the subjects usually offered in the Department of Engineering. Additional subjects may be added, and if so, will be announced before the opening of the fall term. Students may enroll for any one or two unit subjects.

Mathematics (M)
- Shop Mathematics (M-1-2)
- Algebra (M-3)
- Trigonometry, Logarithms, and Slide Rule (M-4)
- Engineering Problems (M-5-6)
- Differential and Integral Calculus (M-7-8)

Mechanical Engineering (ME)
- Mechanical Drawing I (ME-1-2)
- Mechanical Drawing II (ME-3-4)
- Engineering Drawing (ME-5-6)
- Heat Engineering (ME-7-8)
- Power Plants (ME-9-10)
- Machine Design (ME-11-12)
- Automotive Engineering (ME-13-14)
- Blue Print Reading (ME-15-16)
- Advanced Mechanics (ME-17-18)

Electrical Engineering (EE)
- Elementary Electricity (EE-1-2)
- Direct Current Machines (EE-3)
- Alternating Current Circuits (EE-4)
- Electrical Laboratory ((EE-5-6)
- Advanced Electricity (EE-7-8)
- Alternating Current Machines (EE-9-10)
- Communication (EE-11-12)

Building and Construction Engineering (B)
- Architectural Drawing I (B-1-2)
- Architectural Design (B-3-4)
- Theory of Structures (B-5-6)
- Structural Drawing (B-7-8)
- Reinforced Concrete (B-9-10)

English (E)
- Technical English (E-1)
- Report Writing (E-2)

Production Engineering (P)
- Industrial Management (P-1)
- Engineering Conference (P-2-3)

Engineering Mechanics (EM)
- Applied Mechanics (EM-1-2)
- Strength of Materials (EM-3-4)
- Materials Laboratory (EM-5-6)

Metallurgy (Met)
- Engineering Processes (Met-1)
- Advanced Metallurgy (Met-2)

Aeronautics (A)
- Elements of Aviation (A-1)
- Advanced Aeronautics (A-2-3)
- Airplane Engine Design (A-4-5)

(NOTE: Double consecutive numbers represent full year subjects and single numbers one semester only. For synopsis of courses see pages 61 to 70.)

FOUR-YEAR COURSES OF STUDY

Regular four-year courses of study, leading to the title of Associate in Technology, are offered in:

Mechanical Engineering
Electrical Engineering
Building and Construction Engineering

A diploma of graduate in Engineering is given for three years' work completed in any of these courses. Students completing satisfactorily two years' work in these courses will be awarded a Certificate of Proficiency.

The time required to cover the subjects listed in these four-year programs may be shortened somewhat by carrying additional hours, through attendance at summer school classes in any recognized college or university offering similar courses, or by those who may be able to secure advanced standing, as outlined in page 36.

In each of these courses the student, after consultation with the head of the department, may be permitted to substitute one or more subjects chosen from the list of unit subjects regularly offered in either this department or the Department of Commerce and Finance. Certain subjects which are fundamental to engineering are required of the students in each course.

Special consideration will be given to those who find it impossible to carry more than two subjects per week. For their benefit a program covering a longer period of time will be worked out to meet the particular problems of each student in this group. Those who have attended a college or university of recognized standing for one year or longer may find it possible to transfer credits and thus shorten the time required to complete the course they desire.

The college year consists of two semesters of seventeen weeks each, classes for regular courses meeting three nights a week.

MECHANICAL ENGINEERING

This four-year course leading to the title of Associate in Technology, is designed to train the student in the fundamentals of engineering and at the same time to develop in him the ability to analyze and solve engineering problems dealing with Mechanical Engineering. The course prepares men to qualify for positions as assistant engineers, superintendents, designers, foremen, production managers, and for positions concerned with supervision, construction, sales and management in manufacturing industrial plants, and especially in industries making machine tools, engines, pumps, automatic machines, handling and conveying apparatus and power plant equipment.

The success of graduates must be based on scientific training, but it must also depend upon familiarity with current methods. The course of study offered below aims to give the student both types of training.

Satisfactory completion of the first three years of this course entitles the student to a diploma in Engineering. Classes meet three evenings a week throughout the college year.

First Year

First Semester	*Second Semester*
Algebra	Trigonometry, Logarithms,
Engineering Problems	and Slide Rule
Mechanical Drawing	Engineering Problems
	Mechanical Drawing

Second Year

Elementary Electricity	Elementary Electricity
Applied Mechanics	Applied Mechanics
Differential Calculus	Integral Calculus

Third Year

Strength of Materials	Strength of Materials
Heat Engineering	Heat Engineering
Materials Laboratory	Materials Laboratory

Fourth Year

Machine Design	Machine Design
Industrial Management	Engineering Processes
*Power Plants	*Power Plants

* or class elective from the list of unit subjects.

ELECTRICAL ENGINEERING

This four-year course is designed especially to train men to enter upon the various applications of electricity to the useful arts, and leads to the title of Associate in Technology. It should qualify men to fill such positions as engineering assistant, electrical inspector, foremen, designers, testers, and power plant operators in the field of electrical work. These occupations offer excellent opportunity for gradual advancement with growth in experience and ability to positions of greater technical responsibility. The whole work should develop the individual resources of the student and give him confidence in the results obtained.

Satisfactory completion of the first three years entitles the student to a diploma in Engineering. Classes meet three evenings a week throughout the college year.

First Year

First Semester	*Second Semester*
Algebra	Trigonometry, Logarithms, and Slide Rule
Engineering Problems	Engineering Problems
Mechanical Drawing	Mechanical Drawing

Second Year

Elementary Electricity	Elementary Electricity
Applied Mechanics	Applied Mechanics
Differential Calculus	Integral Calculus

Third Year

Direct Current Machines	Alternating Current Circuits
Industrial Management	Engineering Processes
Electrical Laboratory	Electrical Laboratory

Fourth Year

Machine Design	Machine Design
*Advanced Electricity	*Advanced Electricity
*Advanced Electrical Laboratory	*Advanced Electrical Laboratory

* class electives from the list of unit subjects.

BUILDING AND CONSTRUCTION ENGINEERING

The purpose of the course is to give those who desire to qualify in the field of building and construction an opportunity to secure a supplementary training to their present work, or to prepare for the position they may want to occupy. A major consideration of this course is to make available an effective training within the shortest time consistent with thoroughness.

The course aims to prepare men to enter upon the work of the actual construction of modern buildings, and to give them both basic and practical knowledge of building methods, in order to lay a foundation for work of responsibility in the field of building construction.

This four-year course leads to the title of Associate in Technology. Satisfactory completion of the first three years entitles the student to the diploma in Engineering.

Classes meet three evenings a week throughout the college year.

First Year

First Semester	*Second Semester*
Algebra	Trigonometry, Logarithms, and Slide Rule
Engineering Problems	Engineering Problems
Mechanical Drawing	Mechanical Drawing

Second Year

Applied Mechanics	Applied Mechanics
Architectural Drawing	Architectural Drawing
Differential Calculus	Integral Calculus

Third Year

Strength of Materials	Strength of Materials
Theory of Structures	Theory of Structures
Structural Drawing	Structural Drawing

Fourth Year

Architectural Design	Architectural Design
Industrial Management	Engineering Processes
Reinforced Concrete	Reinforced Concrete

THREE-YEAR COURSE IN INDUSTRIAL ENGINEERING

There are many positions in the tecnical or industrial world which require of the men or women holding them a broad general knowledge of industrial conditions rather than a specialized technical education. Careful thought has been given to the actual needs of people holding such positions in the building of this course in Engineering for Industry, the satisfactory completion of which entitles the student to a diploma in Engineering. Students choosing this course may elect to substitute one or more of the unit subjects listed in page 26 for some of those listed below.

Students who may wish to supplement this technical training with a knowledge of business principles are recommended to enter the Special Two Year Industrial Management Course in the Commerce and Finance Department upon the completion of this course.

Industrial Engineering

First Year

First Semester	*Second Semester*
Algebra	Trigonometry, Logarithms, and Slide Rule
Engineering Problems	Engineering Problems
Mechanical Drawing	Mechanical Drawing

Second Year

Differential Calculus	Integral Calculus
Applied Mechanics	Applied Mechanics
Elect One	Elect One
Engineering Drawing	Engineering Drawing
Elementary Electricity	Elementary Electricity

Third Year

Strength of Materials	Strength of Materials
Industrial Management	Engineering Processes
Elective	Elective

TWO-YEAR COURSES OF STUDY

A number of two-year courses of study have been outlined to meet the requirements for specialized training of certain classes of workers in the field of engineering.

Special two-year courses have been arranged as follows:

1. Shop Engineering Course
2. Electrical Workers' Course
3. Mechanical Draftsmen's Course
4. Building Trades Course

Successful completion of the subjects outlined in these courses will entitle the student to the Certificate of Proficiency in his field of work. It will also be possible for those who desire to continue their studies over a longer period, to apply the credits earned in these courses in meeting the requirements for the three-year diploma in Engineering or the four-year title of Associate in Technology.

ELECTRICAL WORKERS' COURSE

This two-year course has been planned particularly for those who are now engaged in the electrical field, having positions such as Linemen, Cablemen, Radio, Telephone and Plant Troublemen and Repairmen, Electricians and Construction Foremen, who desire to gain a practical, working knowledge of the more important theories and laws of electricity. With such a course the student readily learns the theory of motors, generators, circuits, etc. He can then observe the operation of electrical machines in the laboratory, and learn the method of installing, testing and repairing each particular piece of apparatus. The course meets three nights a week throughout the two college years.

First Year

First Semester	*Second Semester*
Algebra	Trigonometry, Logarithms, and Slide Rule
Practical Electricity	Practical Electricity
Engineering Problems	Engineering Problems

Second Year

Engineering Problems	Engineering Problems
Advanced Electricity	Advanced Electricity
Advanced Electricity Laboratory	Advanced Electricity Laboratory

SHOP ENGINEERING COURSE

Many men at present employed in shops and industries have felt the need of a short course in elementary engineering, but have not had the training necessary to admit them to the advanced engineering courses. To these men the course in Shop Engineering offers an opportunity for study in elementary shop mathematics, Mechanical Drawing, and allied subjects, giving a general knowledge of Shop Engineering which is of real, marketable value.

Those completing the course are awarded the regular Certificate of Proficiency, and are then qualified to enter the advanced engineering courses. This course is under the administration of the New Haven Preparatory School. However, the students are enrolled in the Department of Engineering. The dean of the Engineering Department will be glad to counsel with all students relative to vocational problems. Other courses from the list of unit subjects may be substituted or added upon approval by the dean.

First Year

First Semester	*Second Semester*
Shop Mathematics	Shop Mathematics
Technical English	Letter Writing and Reports
Elect One	Elect One
Mechanical Drawing	Mechanical Drawing
Blueprint Reading	Blueprint Reading

Second Year

Algebra	Algebra
Geometry	Geometry
Elect One	Elect One
Physics	Physics
Mechanical Drawing II	Mechanical Drawing II

MECHANICAL DRAFTSMEN'S COURSE

Many men are desirous of obtaining a basic course to prepare them to fill adequately positions in drafting or design with industrial and manufacturing concerns. To such men the course outlined below offers a combination of drafting practice and instruction, together with courses in the mathematical and engineering principles fundamental to all drafting and design. They are thus enabled to obtain a thorough technical training and to develop a definitely marketable skill within the shortest time possible. The Certificate of Proficiency in Drafting is awarded for the satisfactory completion of this course.

Mechanical Draftsmen's Course

First Year

First Semester	*Second Semester*
Algebra	Trigonometry, Logarithms, and Slide Rule
Engineering Problems	Engineering Problems
Mechanical Drawing	Mechanical Drawing

Second Year

Applied Mechanics	Applied Mechanics
Machine Design	Machine Design
Engineering Drawing	Engineering Drawing

BUILDING TRADES COURSE

This course is not in any sense a trade school course, but rather serves those who are employed in positions such as Carpenters, Contractors, Building Inspectors, Construction Foremen, Estimators and Erectors by providing for them a course which in a brief time gives them the necessary supplementary training in those subjects which are essential to their success. It prepares men to enter upon the work of building construction by giving them a sound training in building methods and materials, and teaching to them the underlying principles and theories of Building as a science. This course also constitutes an excellent preparation for those who wish to qualify as Architectural Draftsmen and Designers. The Certificate of Proficiency in Building is awarded for the satisfactory completion of the course.

First Year

First Semester	*Second Semester*
Engineering Problems	Engineering Problems
Algebra	Trigonometry, Logarithms, and Slide Rule
Architectural Drawing	Architectural Drawing

Second Year

Strength of Materials	Strength of Materials
Architectural Design	Architectural Design
Theory of Structures	Theory of Structures

OTHER SPECIALIZED COURSES

Frequently technically trained men find themselves in need of a course covering briefly the underlying principles of some specialized phase of engineering. The dean of the department will by appointment assist in arranging for such of these courses as are needed.